

CLAIM AMENDMENTS

1-46 (Cancelled)

1 47. (Previously Presented) The disk drive of claim 87, wherein the first track includes an
2 AGC field and a burst field, and one of the first and second data patterns is located in one of the
3 AGC and burst fields.

1 48. (Previously Presented) The disk drive of claim 47, wherein the first data pattern is
2 located in the AGC field.

1 49. (Previously Presented) The disk drive of claim 48, wherein the second data pattern is
2 located in the AGC field.

1 50. (Previously Presented) The disk drive of claim 47, wherein the second data pattern is
2 located in the burst field, and the burst field is used primarily during seek and settling operations.

51-52 (Cancelled)

1 53. (Previously Presented) The disk drive of claim 47, wherein the first data pattern is
2 located in the AGC field and the second data pattern is located in the burst field.

1 54. (Previously Presented) The disk drive of claim 53, wherein the burst field is one of a
2 C burst field and a D burst field.

1 55. (Previously Presented) The disk drive of claim 54, wherein the first track includes an
2 A burst field and a B burst field between the first and second data patterns.

1 56. (Previously Presented) The disk drive of claim 55, wherein the A, B, C and D burst
2 fields are located in a single servo region, the A and B burst fields are used primarily during track
3 following operations, and the C and D burst fields are used primarily during seek and settling
4 operations.

1 57. (Previously Presented) The disk drive of claim 87, wherein the detection circuit
2 determines whether the head is within an acceptable flying height range in response to a peak
3 count of a detection signal based on a data pattern that includes at least one of the first and
4 second data patterns.

1 58. (Previously Presented) The disk drive of claim 57, wherein the data pattern is a
2 constant frequency pattern.

59-60 (Cancelled)

1 61. (Previously Presented) The disk drive of claim 57, wherein the detection circuit
2 includes a transition detector and a counter, and an output of the transition detector is coupled to
3 an input of the counter.

1 62. (Previously Presented) The disk drive of claim 61, wherein the transition detector
2 detects a transition in the detection signal only when the detection signal exceeds a
3 predetermined threshold value.

1 63. (Previously Presented) The disk drive of claim 62, wherein the counter counts the
2 number of transitions in the detection signal detected by the transition detector and provides the
3 peak count.

1 64. (Previously Presented) The disk drive of claim 63, wherein the detection circuit
2 includes a memory, and the memory provides a calibration value corresponding to a data storage

3 location on the track that is accessed during one of a read and write operation while the data
4 pattern is read to provide the detection signal.

1 65. (Previously Presented) The disk drive of claim 64, wherein the detection circuit
2 determines whether the head is within an acceptable flying height range in response to the peak
3 count and the calibration value.

1 66. (Previously Presented) The disk drive of claim 65, wherein the detection circuit
2 postpones the operation if the detection circuit determines that the head is not within an
3 acceptable flying height range.

67-86 (Cancelled)

1 87. (Currently Amended) A disk drive, comprising:
2 a disk having a plurality of concentric tracks for storing data, the tracks including a first
3 track having a first data pattern with a first frequency and a second data pattern with a second
4 frequency that is higher than the first frequency, wherein the first and second data patterns are
5 located in separate non-overlapping circumferential portions of the first track;
6 a head for reading data from and writing data to the disk; and
7 a detection circuit that determines whether the head is within an acceptable flying height
8 range in response to the first and second data patterns while the head is at a substantially constant
9 flying height.

1 88. (Previously Presented) The disk drive of claim 87, wherein the second data pattern is
2 a constant frequency pattern.

89-90 (Cancelled)

1 91. (Previously Presented) The disk drive of claim 87, wherein the second data pattern is
2 located in an AGC field.

1 92. (Previously Presented) The disk drive of claim 87, wherein the second data pattern is
2 located in a servo burst field.

1 93. (Previously Presented) The disk drive of claim 87, wherein the detection circuit
2 determines whether the head is within an acceptable flying height range while the head is at a
3 non-predetermined flying height.

1 94. (Previously Presented) The disk drive of claim 87, wherein the detection circuit
2 includes a transition detector, a counter, and a memory, an output of the transition detector is
3 coupled to an input of the counter, and outputs of the counter and the memory are coupled to an
4 output of the detection circuit.

1 95. (Previously Presented) The disk drive of claim 94, wherein the transition detector
2 detects a transition in a detection signal based on the second data pattern only when the detection
3 signal exceeds a predetermined threshold value, the counter counts the number of transitions in
4 the detection signal detected by the transition detector and provides a peak count, the memory
5 provides a calibration value corresponding to a data storage location on the track that is accessed
6 during one of a read and write operation while the first and second data patterns are read, and the
7 detection circuit determines whether the head is within an acceptable flying height range in
8 response to the peak count and the calibration value.

1 96. (Previously Presented) The disk drive of claim 95, wherein the detection circuit
2 postpones the operation if the detection circuit determines that the head is not within an
3 acceptable flying height range.

1 97. (Previously Presented) A disk drive, comprising:
2 a disk having a plurality of concentric tracks for storing data, the tracks including a first
3 track having a first data pattern with a first frequency and a second data pattern with a second

4 frequency that is higher than the first frequency, wherein the first and second data patterns are
5 located in separate non-overlapping circumferential portions of the first track;
6 a head for reading data from and writing data to the disk; and
7 a detection circuit that determines whether the head is within an acceptable flying height
8 range in response to the first and second data patterns without moving the head to a substantially
9 different flying height.

1 98. (Previously Presented) The disk drive of claim 97, wherein the second data pattern is
2 a constant frequency pattern.

99-100 (Cancelled)

1 101. (Previously Presented) The disk drive of claim 97, wherein the second data pattern
2 is located in an AGC field.

1 102. (Previously Presented) The disk drive of claim 97, wherein the second data pattern
2 is located in a servo burst field.

1 103. (Previously Presented) The disk drive of claim 97, wherein the detection circuit
2 determines whether the head is within an acceptable flying height range while the head is at a
3 non-predetermined flying height.

1 104. (Previously Presented) The disk drive of claim 97, wherein the detection circuit
2 includes a transition detector, a counter, and a memory, an output of the transition detector is
3 coupled to an input of the counter, and outputs of the counter and the memory are coupled to an
4 output of the detection circuit.

1 105. (Previously Presented) The disk drive of claim 104, wherein the transition detector
2 detects a transition in a detection signal based on the second data pattern only when the detection
3 signal exceeds a predetermined threshold value, the counter counts the number of transitions in

4 the detection signal detected by the transition detector and provides a peak count, the memory
5 provides a calibration value corresponding to a data storage location on the track that is accessed
6 during one of a read and write operation while the first and second data patterns are read, and the
7 detection circuit determines whether the head is within an acceptable flying height range in
8 response to the peak count and the calibration value.

1 106. (Previously Presented) The disk drive of claim 105, wherein the detection circuit
2 postpones the operation if the detection circuit determines that the head is not within an
3 acceptable flying height range.

107 (Cancelled)

1 108. (Previously Presented) The disk drive of claim 87, wherein the first and second
2 data patterns are circumferentially spaced from one another.

1 109. (Previously Presented) The disk drive of claim 87, wherein the first and second
2 data patterns each intersect a centerline of the first track.

1 110. (Previously Presented) The disk drive of claim 87, wherein the first data pattern is
2 circumferentially adjacent to a first user data field on the first track.

1 111. (Previously Presented) The disk drive of claim 110, wherein the second data pattern
2 is circumferentially adjacent to a second user data field on the first track.

1 112. (Previously Presented) The disk drive of claim 87, wherein the first and second
2 data patterns are circumferentially adjacent to and separated by a region of the first track that is
3 devoid of a user data field.

1 113. (Previously Presented) The disk drive of claim 112, wherein the region of the first
2 track contains two servo burst fields between the first and second data patterns.

114 (Cancelled)

- 1 115. (Previously Presented) The disk drive of claim 87, wherein only one of the first and
2 second data patterns provides servo positioning information.

116-117 (Cancelled)

- 1 118. (Previously Presented) The disk drive of claim 97, wherein the first and second
2 data patterns are circumferentially spaced from one another.

- 1 119. (Previously Presented) The disk drive of claim 97, wherein the first and second
2 data patterns each intersect a centerline of the first track.

- 1 120. (Previously Presented) The disk drive of claim 97, wherein the first data pattern is
2 circumferentially adjacent to a first user data field on the first track.

- 1 121. (Previously Presented) The disk drive of claim 120, wherein the second data pattern
2 is circumferentially adjacent to a second user data field on the first track.

- 1 122. (Previously Presented) The disk drive of claim 121, wherein the first and second
2 data patterns are circumferentially adjacent to and separated by a region of the first track that is
3 devoid of a user data field.

- 1 123. (Previously Presented) The disk drive of claim 122, wherein the region of the first
2 track contains two servo burst fields between the first and second data patterns.

124 (Cancelled)

1 125. (Previously Presented) The disk drive of claim 97, wherein only one of the first and
2 second data patterns provides servo positioning information.

1 126. (Previously Presented) The disk drive of claim 97, wherein both of the first and
2 second data patterns provide servo positioning information.